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HISTORIC AMERICAN ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

ROCKY FLATS PLANT, PLUTONIUM FABRICATION — HAER No. CO-83-O
(Rocky Flats Plant, Building 776/777)
Located in the central section of the Plant.
Golden Vicinity
Jefferson County
Colorado

Photographs CO-83-O-1 through CO-83-O-21 were taken by various site photography contractors, dates are indicated in parentheses.

CO-83-O-1 VIEW LOOKING NORTHWEST AT BUILDING 776/777, THE PLUTONIUM PROCESSING BUILDING, DURING CONSTRUCTION. (4/10/56)

CO-83-O-2 VIEW LOOKING NORTHEAST AT BUILDING 776/777 DURING CONSTRUCTION. (4/12/56)

CO-83-O-3 VIEW LOOKING NORTH DURING CONSTRUCTION OF THE TUNNEL THAT CONNECTS BUILDING 776/777 (PLUTONIUM PROCESSING) WITH BUILDING 771 (PLUTONIUM RECOVERY). (6/22/56)

CO-83-O-4 VIEW OF THE INTERIOR OF BUILDING 776/777 DURING CONSTRUCTION. (8/22/56)

CO-83-O-5 AERIAL VIEW LOOKING SOUTH AT THE PLUTONIUM BUILDINGS (700S). BUILDING 776/777 IS THE LARGE BUILDING IN THE CENTER PORTION OF THE PHOTOGRAPH. BUILDING 771 IS IN THE LOWER RIGHT CORNER, AND BUILDING 707 IS TO THE SOUTH OF BUILDING 776/777. (6/21/88)

CO-83-O-6 VIEW OF INTERIOR GLOVE BOX DURING CONSTRUCTION. GLOVE BOXES CONTAINED ALL PRODUCTION OPERATIONS AND WERE INTERCONNECTED BY CONVEYORS. (9/21/59)

CO-83-O-7 VIEW OF GLOVE BOX LINE UNDER CONSTRUCTION. (12/20/56)

CO-83-O-8 VIEW OF A MOLD FOR PRECISION CASTING. THE MOLD WAS USED IN FOUNDRY OPERATIONS THAT CAST PLUTONIUM EITHER AS INGOTS SUITABLE FOR ROLLING AND FURTHER WROUGHT PROCESSING OR INTO SHAPES AMENABLE TO DIRECT MACHINING OPERATIONS. (5/6/59)

CO-83-O-9 DETAILED VIEW OF BRIQUETTING PRESS HOUSED IN A GLOVE BOX. THE PRESS FORMED SCRAP PLUTONIUM METAL FROM FOUNDRY AND FABRICATION PROCESSES INTO SMALL BRIQUETTES. THESE BRIQUETTES BECAME PART OF THE FEED MATERIALS FOR THE FOUNDRY. (5/6/59)

CO-83-O-10 VIEW OF THE INSTALLATION OF PLUTONIUM FABRICATION ROLLING MILL. THE MILL ROLLED INGOTS INTO SHEETS THAT WERE THEN CUT INTO CIRCLE BLANKS TO BE PASSED THROUGH THE CENTER LINE FOR PRESSING. (2/19/63)

CO-83-O-11 VIEW OF A SITE RETURN WEAPONS COMPONENT. SITE RETURNS WERE NUCLEAR WEAPONS SHIPPED TO THE ROCKY FLATS PLANT FROM THE NUCLEAR WEAPON STOCKPILE FOR RETIREMENT, TESTING, OR UPGRADING. FISSILE MATERIALS (PLUTONIUM, URANIUM, ETC.) AND RARE MATERIALS (BERYLLIUM) WERE RECOVERED FOR REUSE, AND THE REMAINDER WAS DISPOSED. (8/7/62)

CO-83-O-12 VIEW OF A SITE RETURN WEAPONS COMPONENT. AFTER SEGREGATION, PLUTONIUM MATERIALS WERE EITHER RETURNED TO THE BUILDING 776 FOUNDRY WHERE THEY WERE CAST INTO FEED INGOTS, OR UNDERWENT CHEMICAL RECOVERY FOR PURIFICATION. (8/7/62)

CO-83-O-13 VIEW OF THE MOLTEN SALT EXTRACTION LINE. THE MOLTEN SALT EXTRACTION PROCESS WAS USED TO PURIFY PLUTONIUM BY REMOVING AMERICIUM, A DECAY BY-PRODUCT OF PLUTONIUM. (1/98)

CO-83-O-14 VIEW OF THE OUTSIDE OF A GLOVE BOX THAT CONTAINS ELECTROREFINING EQUIPMENT. ELECTROREFINING WAS ONE OF THE PROCESSES USED TO PURIFY PLUTONIUM THAT DID NOT MEET PURITY SPECIFICATIONS. (10/25/66)

CO-83-O-I5 DETAIL VIEW OF ELECTROREFINING EQUIPMENT CONTAINED WITHIN A GLOVE BOX. (10/25/66)

CO-83-O-16 DETAILED VIEW OF SAMPLING EQUIPMENT. SAMPLED OFF-GAS IS SENT THROUGH A FOUR – STAGE COLD WATER TRAP. COOLING OF THE GAS ALLOWS A CONDENSATE TO FORM. THE CONDENSATE IS ANALYZED FOR CHEMICAL CONTENT. (6/2/80)

CO-83-O-I7 VIEW OF A ROOM DAMAGE IN A FIRE THAT OCCURRED ON MAY II, 1969. (5/18/69)

CO-83-O-18 DETAILED VIEW OF A GLOVE BOX DAMAGED IN A FIRE THAT OCCURRED ON MAY 11, 1969. THE FIRE OCCURRED FROM THE SPONTANEOUS IGNITION OF A BRIQUETTE OF SCRAP PLUTONIUM ALLOY METAL. (5/18/69)

CO-83-O-I9 VIEW OF THE EXTERIOR OF THE ADVANCED SIZE REDUCTION FACILITY. (II/6/86)

CO-83-O-20 VIEW OF THE INTERIOR OF THE ADVANCED SIZE REDUCTION FACILITY USED TO CUT PLUTONIUM CONTAMINATED GLOVE BOXES AND MISCELLANEOUS LARGE EQUIPMENT DOWN TO AN EASILY PACKAGED SIZE FOR DISPOSAL. ROUTINE OPERATIONS WERE PERFORMED REMOTELY, USING HOISTS, MANIPULATOR ARMS, AND GLOVE PORTS TO REDUCE BOTH INTENSITY AND TIME OF RADIATION EXPOSURE TO THE OPERATOR. (11/6/86)

CO-83-O-2I VIEW OF THE SUPERCOMPACTOR. THE SUPERCOMPACTOR WAS USED TO REDUCE THE VOLUME OF MISCELLANEOUS PLUTONIUM CONTAMINATED MATERIALS SUCH AS GLOVES. PAPER, AND LIGHTWEIGHT METALS. THESE MATERIALS WERE COMPACTED INTO A DRUM FOR DISPOSAL. (4/4/91)